Docket Management System
U.S. Department of Transportation
Room Plaza 401
400 Seventh St. SW.
Washington, DC 20590-0001
RE: Docket No. FAA-2001-10191/ Petition for exemption

Please note that while my remarks are rather similar to those of the Aircraft Owners and Pilots Association, they are not identical.

If granted, this action will provide relief to Title 14 CFR Part 91.209(a)(1) and (b), allowing the United States Air Force to conduct night-vision goggle "lights-out" training in the Alaskan military operating areas (MOAs) and selected MOAs within the lower 48 contiguous United States and Puerto Rico.

Although I recognize the military's need to train in an environment that closely replicates actual combat conditions, I believe that steps must be taken by both the Air Force and the Federal Aviation Administration (FAA) to ensure that the resulting impact to the general aviation community is mitigated and an equivalent level of safety is achieved. Unfortunately, little of relevance has changed since the last time that the Air Force applied for this exemption.

The granting of this petition would adversely affect the manner in which pilots of non-participating aircraft exercise their "see-and-avoid" responsibilities mandated by Title 14 CFR Part 91.113 (b), which states in part:
"…When weather conditions permit, regardless of whether an operation is conducted under instrument flight rules or visual flight rules, vigilance shall be maintained by each person operating an aircraft so as to see and avoid other aircraft…"

This regulation makes no distinction between civil and military pilots, and is mandated for all airspace users. Supporting the see-and-avoid principal is the regulation from which the Air Force seeks exemption. Title 14 CFR Part 91.209 requires the use of aircraft position and anti-collision lighting systems between sunset and sunrise. By doing so, aircraft can be more easily seen, resulting in an increased level of safety.

I have on at least one occasion aurally detected a flight of multiple turboprop (C-130?) aircraft flying over Clinton Lake in eastern Kansas after dark , only one of which was lighted. This occasion was miles from any MOA and miles from any MTR marked on the sectional. Frankly, even though I was safely on the ground when this occurred, I was very disturbed by the realization that I could have been up there myself when this occurred. There would have been no way I could hear the other turboprops over the sound of my own aircraft, and no way for me to see that there was more than one of them!

The absence of this operational safeguard would establish a dangerous precedent by requiring the pilots of non-participating aircraft to abdicate their responsibility in the see-and-avoid dynamic. Non-participating pilots would be forced to rely completely on the actions of another aircraft pilot, one with whom they will have no contact (visual or otherwise). Although USAF pilots are among the best-trained aviators in the world, there is an inherent danger in having dissimilar aircraft operating under the prescribed conditions without certain safeguards being in place. In short, GA pilots must be given the tools necessary to fly safely in such an environment. To this end, I would like the following addressed:

1. The comment period of 10 days given in the Federal Register is woefully inadequate to respond to an issue of this complexity. It is also contrary to the guidance given in Title 14 CFR Part 11.89, which states that the FAA usually allows 20 days to comment on a petition for exemption. If it is the FAA's desire to receive substantive input from the public, a more realistic comment period should be provided.
2. Official guidance given to pilots by the FAA must acknowledge that the US Air Force is ultimately responsible for collision avoidance during any and all lights-out operations.
3. The petition submitted by the Air Force contains an appendix outlining the specific MOAs that are to be used for the conduct of lights out training. However, it fails to specify the safety criterion that was used for their selection. Since there are issues of radar coverage, communications, and volume of non-participatory traffic to be considered, the criteria for lights-out operations within MOAs should be included in FAA Order 7400.2, Procedures for Handling Airspace Matters. This would allow for ongoing input from both industry and the FAA, and would provide an important vehicle for the continued evaluation of such airspace developments.
4. The Air Force does not address the future expansion of this program. As part of this process, I would like some assurance that lights-out operations will not be expanded to include additional MOAs. This would also include assurances that such operations will not be conducted within temporary MOAs.
5. A key issue of both safety, and with it access, is the ability to determine the status of special use airspace. This has been a long-standing concern that predates the lights-out issue. The Air Force states in their petition that notification will be accomplished by NOTAM. Although the military NOTAM system has provisions for such entries, those disseminated to civil pilots do not include this information. Without a change in the NOTAM system, this method of distribution does not work. I ask that military NOTAMs, at least those applicable to special use airspace, be made available to civil pilots through commercially available online resources (i.e. DUATS) and the Flight Service system. This is absolutely critical for civilian preflight planning.
6. Fixing the NOTAM system still offers no solution to the issue of real-time notification. Presumably, the controlling agency would be the primary source for such information. However, pilots operating VFR are given this type of traffic information only when permitted by the workload of the controller. Also, depending on the aircraft's location and altitude, communication with the controlling agency may not always be possible. In addressing this point, the petition offers, "…a message will be placed on the unit's local Automatic Terminal Information Service (ATIS)…" There are three problems with this method. First, not all units have such systems in place. Next, given the geographical size of some complexes, pilots may not be able to pick up an ATIS broadcast without the establishment of remote communications outlets. Third, a functioning COM radio is not required for part 91 flight under visual meteorological conditions within Class E and Class G airspace. This is a critical safety issue, and I strongly recommend that a plan be developed and implemented that will address this concern. It is also vital that a system is established by which the controlling agency sends immediate broadcast updates to all Flight Service Stations proximate to the airspace being used.
7. Regardless of the communicative methodology that is used, the information disseminated to pilots should include the time(s) of operation, and the altitudes and geographical boundaries to be used during the exercise. This would allow pilots another level of safety when operating in such airspace.
8. Non-radar and lost communication procedures are mentioned as provisions to be included in the required Letters Of Agreement (LOA) between the using and controlling agencies. Examples of such procedures should be included in the

Aeronautical Information Manual (AIM), allowing pilots to better understand the air traffic environment in which they may operate.
9. The Air Force petition states that efforts will be made to educate the users on all aspects of lights-out operations. This must be modified to include a requirement for an ongoing initiative, and not simply a one-time program. The FAA should also develop an Advisory Circular to advise pilots of the unique operational nature of "light-out" MOAs. Similar guidance should also be provided in the AIM.
10. Another strategy intended to improve safety involves the use of aircraft equipped with onboard sensors, which will clear the training airspace prior to the commencement of activities. It is known that the radar systems of some tactical aircraft use the relative movement of their targets to "paint" an image. Many GA aircraft, by their very nature, fly slowly and in those instances when a change in aspect is minimal, radar may have difficulty in sensing the traffic. In addition, the use of ground radars was cited as providing an additional level of protection, yet radar coverage within every MOA is not complete. This further emphasizes the need for the additional safeguards outlined in these comments. Note that there may already exist some technology which could, with reasonable modifications, be employed to provide an additional measure off safety for lights-out flying. I am referring to TCAS, which relies on transponder replies. Perhaps such equipment could be modified to logically over-ride lights-out operation of military aircraft whenever TCAS predicts potential collisions within two minutes. Since all Part 91 aircraft ARE required to have lights on, the vast majority will also have engine-driven electrical systems, which, by extension, means that they must have Mode-C transponders and they must be in use, but only within 30 miles of the center of Class B airspace. Perhaps through more carefully prepared regulation, the transponder requirements could be added to night flight within all MOAs, thus enabling such modified TCAS-equipped military flights to operate with lights-out, but only when more than 2 minutes from any potential collision. However, this approach would have other adverse economic impacts on general aviation, which has already suffered enough this year from apparently haphazard and inconsistent regulation via NOTAM.
11. The specifications for charting the MOAs to be used in lights-out operations have yet to be established. This must be addressed prior to the commencement of such activities. Additionally, contact information for the scheduling/using agency should be in the tabular portion of the aeronautical sectional charts and within the Airports/Facility Directory for a specific region.
12. The FAA and the USAF needs to publish a plan of action to include an implementation timetable for integrating information from the Military Airspace Management System (MAMS) with that of the FAA's Special Use Airspace Management System (SAMS).
13. Positive action should be taken to ensure all controlling agencies accurately report the status of their airspace complexes.

I am deeply concerned with the precedent that would be established through the granting of this petition for exemption. However, if it is decided this proposal needs go forward for reasons of national security, safeguards must be established to mitigate the impact to those with whom the military shares the national airspace system. None of us will win any brownie points by neglectfully enabling the preventable accidental killing of innocent American citizens.

Respectfully,

Bruce N. Liddel